

All the new sets of data provided by Copernicus satellites open up the way for innovative scenarios. In the domain of wildlife protection, combining animal tracking data with remotely-sensed earth observation data is appealing. To reach that such capability, EO4wildlife, the result of a collaborative work under the support of the EU H2020 program, proposes a cloud platform with a toolbox of interoperable data processing services and features to connect to animal tracking databases, access large data collections from Copernicus Marine core service, sample relevant environmental indicators, and finally run species distribution models in a scalable processing environment.

Exploiting the rich Copernicus datasets is a challenge for scientists. A wide diversity of products is available through different interfaces, but this profusion of options can be overwhelming for scientists not having the technical capabilities to access this data. EO4wildlife provides an easy access to a comprehensive set of EO datasets. The platform hosts a series of data analytics services: data pre-processing and aggregation, an important step when dealing with imprecise and noisy information such as animal positions; data mining and tracks processing service to model animals' use of space and correlate this information with environmental earth observations; fusion services to mix tracks with environmental data. These services uses multiple data sources to better estimate animals' position, behavior and modelling animals' habitats.

The platform is composed of several functional components. An internal data catalogue aggregates georeferenced products metadata from various external sources. An ingestion component allows retrieving this data on-demand for exploitation by the services. The service manager component allows users to manage the lifecycle and the execution of their services. At the end of the chain, EO4wildlife makes available visualization features for geographic data and service results.